

REMARKS

By this amendment, claim 33 is revised, claim 35 is canceled, and arguments are presented to place this application in condition for allowance. Currently, claims 33, 34, and 36 are before the Examiner for consideration on their merits.

First, claim 33 is revised to define specific quantum films as found on page 4, lines 11-24. The semiconductor layer specifics are found on page 5, lines 1-9. The temperature limitation is found in original claim 8. Thus, no new matter is introduced by the revisions to the claims.

Second, Applicants submit that a *prima facie* case of obviousness is not established by the cited prior art or the new prior art accompanying this filing. The question of obviousness is not just the lower MOVPE temperature given the changes to claim 33. Another issue is whether Ellmers et al. (1998) or any of the other prior art of record teaches or suggests the features added to claim 33.

In this regard, Applicants submit that the features of claim 33 with respect to the layer for light production being at least one quantum film of InGaAsN or InGaAsNSb and the strain compensating layers are semiconductor layers of Ga(Pas), Ga(NAs) or (GaIn)(NAs) are not present in Ellmers et al. (1998). Applicants submit that the same assertion can be made regarding all of the other documents being considered by the Examiner so far.

The aim of the present invention is to provide a method for the

production of semiconductor layer structures, which can be used to provide disk lasers with an emission wavelength of equal or more than 1,050 nm. Therein, at least one quantum film should be of InGaAsN or InGaAsNSb. Furthermore, the device should have at least one strain compensating layer, wherein the strain-compensating layer(s) are semiconductor-layers of Ga(PAs), Ga(NAs) or (GaIn)(NAs) strained by tensile stress and wherein the layer succession features one or several layers with arsenic and/or phosphorus by use of TBAs sources and/or TBP sources. The strain compensating layer(s) should be achieved by MOVPE.

Surprisingly very good results were found using the above-mentioned material combinations, particularly InGaAsN and InGaAsNSb for manufacturing of the at least one quantum film, and MOVPE at a temperature equal or less than 600°C to achieve the strain compensating layers. Thus, disk lasers with wavelengths of 1,050 nm and 1,260 nm are able to be realized with semiconductor layer structures provided by means of the claimed method.

There is no reason that Ellmers et al. (1998) could be modified to include the features now found in claim 33 since there is no reason to support such a modification. Any future allegation of obviousness based on Ellmers et al. (1998) is considered to be the hindsight reconstruction of the prior art based on Applicants' disclosure. Such a rejection could not be sustained on appeal.

Based on the above, a *prima facie* case of obviousness is not

established against claims 33, 34, and 36 by Ellmers et al. (1998) and the rejection should be withdrawn.

In response to the Examiner's comment that certain prior art was not cited correctly, Applicants request clarification regarding this statement. The prior art cited in the last response was the inventor's own publications that were all published beyond Applicants' priority date. Since these publications are not prior art against the Applicants, clarification is requested as to Examiner's comments concerning the citation.

Clarification is also requested concerning the Examiner's comments that 10 documents are referenced but only 8 documents are cited in support of the arguments of patentability. In the last response, Documents #1 and #2 were discussed on page 6 of the response and the remaining 8 documents were discussed on page 7 of the response. Therefore, all ten documents were mentioned in connection with the arguments in favor of patentability. Again, clarification of the Examiner's comments is requested.

In light of the amendment and arguments made above, the Examiner is requested to examine this application in light of this amendment and pass all pending claims onto issuance.

If the Examiner believes that an interview would be helpful in expediting the allowance of this application, the Examiner is requested to telephone the undersigned at 202-835-1753.

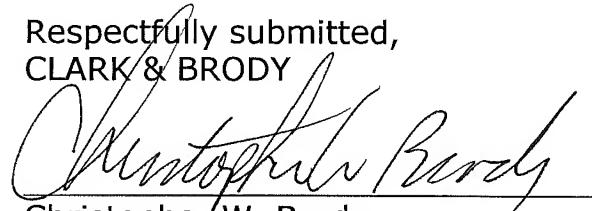
The above constitutes a complete response to all issues raised in the Office Action dated January 6, 2010.

Again, reconsideration and allowance of this application is respectfully requested.

Applicants petition for a one month extension of time. Please charge deposit account 50-1088 the amount of \$65.00.

Please charge any fee deficiencies to Deposit Account No. 50-1088.

Respectfully submitted,
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